



Appln. No. 10/660,543  
Amendment Dated ~~June 29~~ <sup>July 19</sup>, 2005  
Reply to Office action of May 17, 2005

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (currently amended) An apparatus for measuring the distance traveled by relative position of a movable object, said apparatus comprising:

a member movable along a fixed, one-dimensional path to a position along said path corresponding to the relative position of the object;

a plurality of spaced electrical contacts insulated from one another and positioned along at least one side of said path;

data-storing means operatively connected to said plurality of contacts, said data-storing means including a corresponding plurality of memory locations each of which stores a preset, different ~~position~~ distance-measurement data and each of which is respectively operatively connected to one of said plurality of contacts, each of said ~~position~~ distance-measurement data stored respectively in said plurality of memory locations being uniquely respectively associated with one of said plurality of contacts along said path to which said memory location is operatively respectively connected; and

output means operatively connected to said data-storing means;

said movable member being effective as it moves along said path to engage when in engagement with one of said contacts, thereby to cause only the distance-measurement data stored in the one of said memory locations then operatively connected to said one of said contacts to be applied to said output means

Claim 2 (previously presented) The apparatus of Claim 1, in which said output means is a display device.

Claim 3 (previously presented) The apparatus of Claim 1, in which said output means is a CPU.

Claim 4 (previously presented) The apparatus of Claim 1, in which said contacts are arranged in an arcuate path.

Claim 5 (previously presented) The apparatus of Claim 4, in which said movable member is connected at one of its ends to a voltage source and its other free end is movable along said arcuate path to make electrical contact with one of said contacts.

Claim 6 (withdrawn) The apparatus of Claim 1, in which said contacts are arranged in a rectilinear path.

Claim 7 (withdrawn) The apparatus of Claim 6, in which said member is movably axially along said rectilinear path for making contact with aligned pairs of said contacts at each of its ends.

Claim 8 (previously presented): The apparatus of Claim 1, in which said data-storing means is a ROM.

Claim 9 (previously presented) The apparatus of Claim 1, further comprising a voltage source, said member being effective when in electrical contact with one of said contacts to an associated one of said memory locations in circuit arrangement with said voltage source.

Claim 10 (previously presented) The apparatus of Claim 9, in which said output means is a display device.

Claim 11 (previously presented) The apparatus of Claim 9, in which said output means is a CPU.

Claim 12 (previously presented) The apparatus of Claim 9, in which said contacts are arranged in an arcuate path.

Claim 13 (previously presented) The apparatus of Claim 12, in which said movable member is connected at one of its ends to said voltage source and at its other free end is movable along said arcuate path to make electrical contact with one of said contacts.

Claim 14 (withdrawn) The apparatus of Claim 9, in which said contacts are arranged in a rectilinear path.

Claim 15 (withdrawn) The apparatus of Claim 14, in which said member is movable axially along said rectilinear path for making contact with said pairs of contacts at its ends.

Claim 16 (previously presented) The apparatus of Claim 9, in which said data-storing means is a ROM.

Claim 17 (currently amended) A method for determining the distance traveled by relative position of a movable object, said method comprising the steps of:  
arranging a plurality of fixed, spaced and insulated electrical contacts along at least one side of a single, one-dimensional path;  
moving an electrically conductive member along said path by an amount representative of the relative movement of said object, thereby causing said movable member to make electrical contact with one of said contacts;  
storing respectively a corresponding plurality of different preset position distance-measurement data in a corresponding plurality of data-storing locations in a memory respectively operatively connected to said plurality of contacts, the position distance-measurement data stored in said plurality of data-storing locations being respectively uniquely associated with one of said plurality of contacts; and

causing the ~~position~~ distance-measurement data stored in the one of said data-storing locations associated with and electrically operatively connected to the one of said plurality of contacts then contacted by said movable member to be applied to an output device.